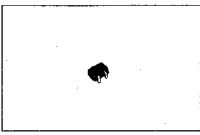




No. 1284

2SA1342/2SC3396



**SILICON PNP/NPN EPITAXIAL PLANAR TRANSISTOR
FOR SWITCHING APPLICATIONS
(WITH BIAS RESISTOR BUILT IN)**

Applications

Switching circuit, inverter, interface circuit, driver

Features

- Built-in bias resistor ($R_1=22k\Omega$, $R_2=22k\Omega$).
- Small-sized package (CP).

(): 2SA1342

Absolute Maximum Ratings/ $T_a=25^\circ\text{C}$

			unit
Collector to Base Voltage	V_{CB0}	(-)50	V
Collector to Emitter Voltage	V_{CEO}	(-)50	V
Emitter to Base Voltage	V_{EBO}	(-)10	V
Collector Current	I_C	(-)100	mA
Peak Collector Current	i_{cp}	(-)200	mA
Collector Dissipation	P_C	200	mW
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

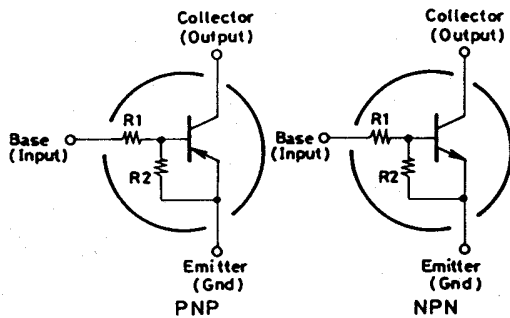
Electrical Characteristics/ $T_a=25^\circ\text{C}$

			min	typ	max	unit
Collector Cutoff Current	I_{CB0}	$V_{CB}=(-)40\text{V}$, $I_E=0$			(-)0.1	μA
Collector Cutoff Current	I_{CEO}	$V_{CE}=(-)40\text{V}$, $I_B=0$			(-)0.5	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB}=(-)5\text{V}$, $I_C=0$	(-)70	(-)113	(-)150	μA
DC Current Gain	h_{FE}	$V_{CE}=(-)5\text{V}$, $I_C=(-)5\text{mA}$	50			
Gain Band-width product	f_T	$V_{CE}=(-)10\text{V}$, $I_C=(-)5\text{mA}$		250 (200)		MHz
Output Capacitance	c_{ob}	$V_{CB}=(-)10\text{V}$, $f=1\text{MHz}$		3.5 (5.3)		pF
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=(-)10\text{mA}$, $I_B=(-)0.5\text{mA}$	(-)0.1	(-)0.3		V

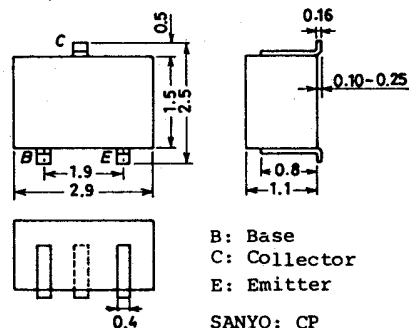
Marking on Device

2SA1342: CL, 2SC3396: CY

Electrical Connection



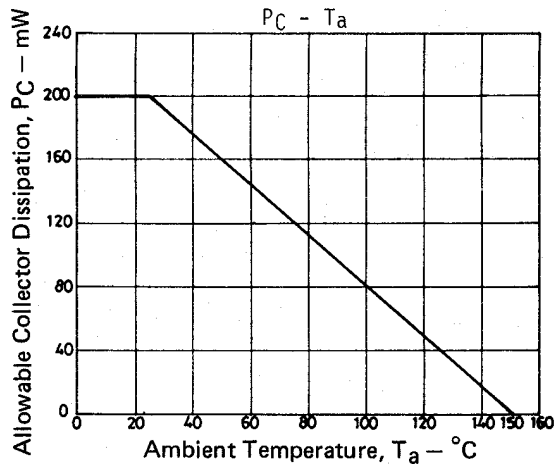
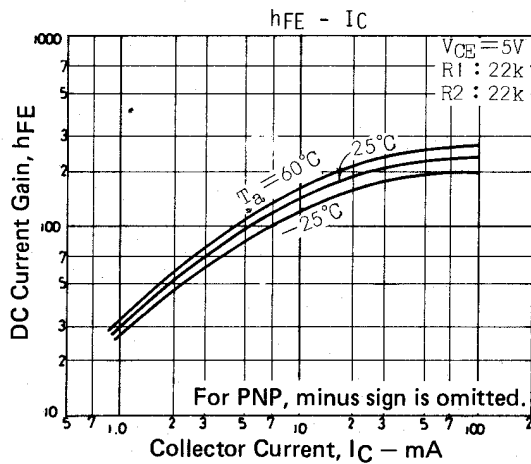
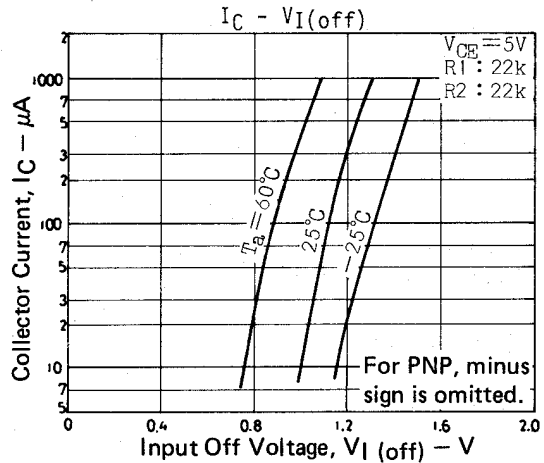
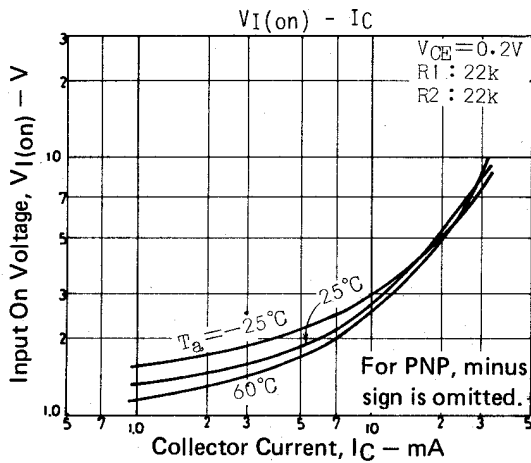
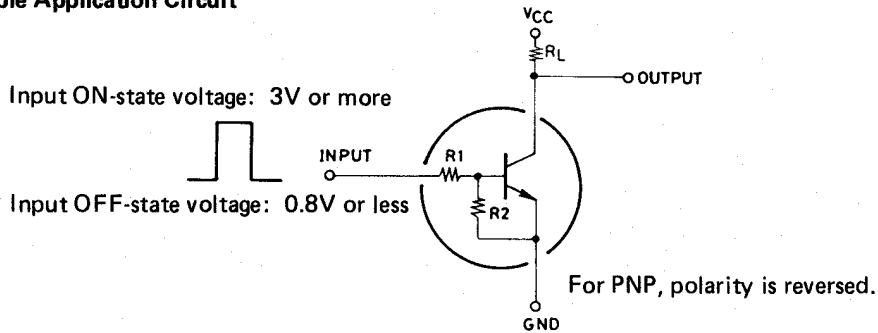
**Case Outline 2018
(unit: mm)**



These specifications are subject to change without notice.

			min	typ	max	unit
Collector to Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=(-)10\mu A, I_E=0$	(-50)			V
Collector to Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=(-)100\mu A, R_{BE}=\infty$	(-50)			V
Input Off Voltage	$V_{I(off)}$	$V_{CE}=(-)5V, I_C=(-)100\mu A$	(-0.8)	(-1.1)	(-1.5)	V
Input On Voltage	$V_{I(on)}$	$V_{CE}=(-)0.2V, I_C=(-)5mA$	(-1.0)	(-1.9)	(-3.0)	V
Input Resistance	R_1		15	22	29	k Ω
Input Resistance Ratio	R_1/R_2		0.9	1.0	1.1	-

■ Sample Application Circuit



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